PYLE®

PLCDCS220MP
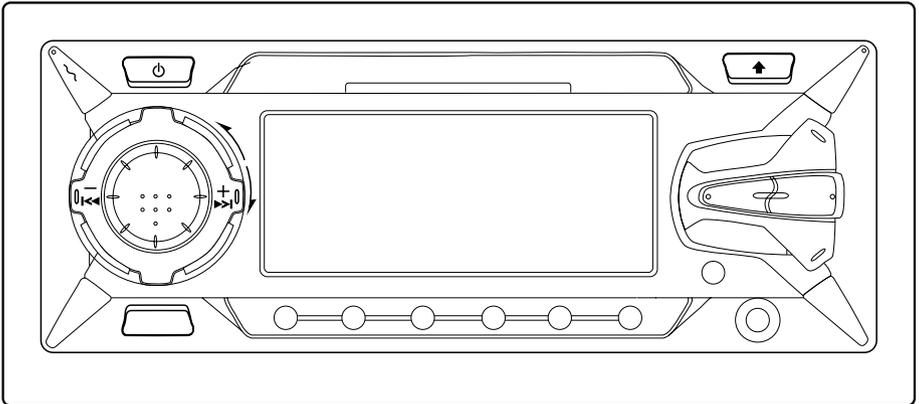
OWNER'S MANUAL

Mobile Audio System

- **PLL Synthesizer Stereo Radio**
- **Car CD/MP3/WMA Player**
- **Cassette Player**
- **Automatic Memory Storing**
- **Preset Equalization**
- **Undetachable Panel**
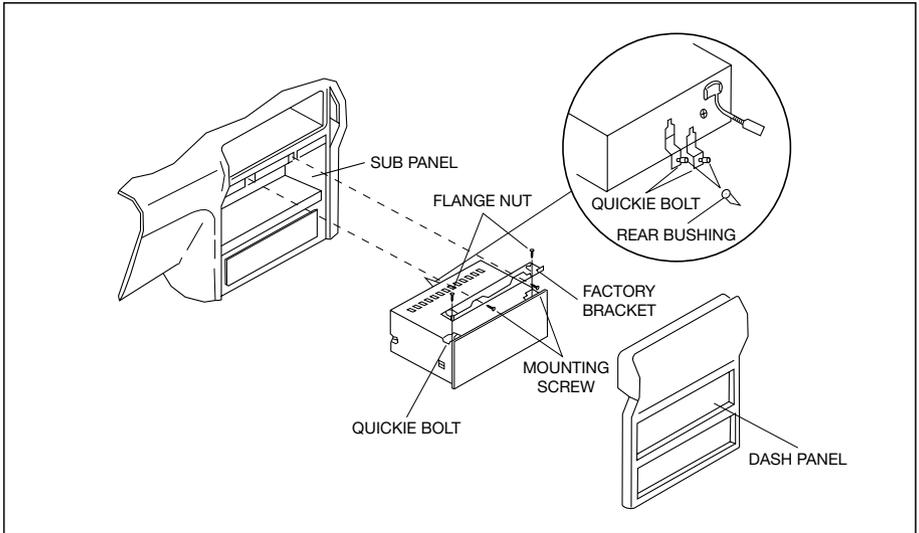- **Auxiliary Input Function**
- **Remote Control**

www.pyleaudio.com
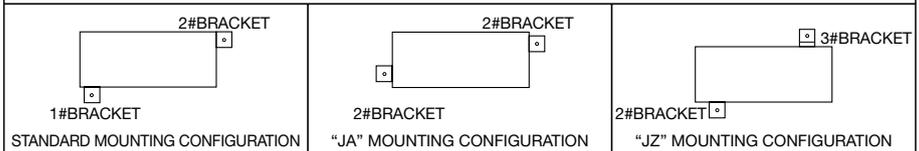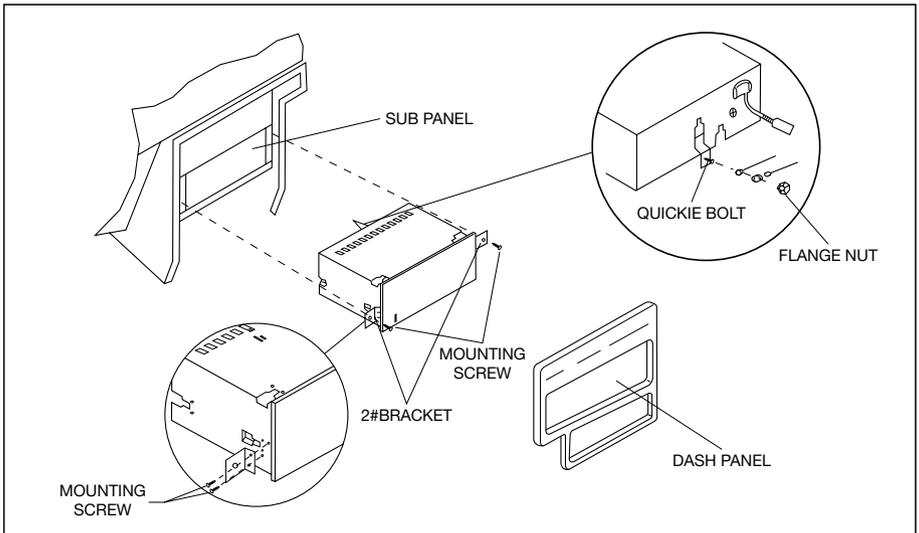
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FLANGE NUT

QUICKIE BOLT

REAR BUSHING

FACTORY BRACKET

MOUNTING SCREW

QUICKIE BOLT

DASH PANEL

Method B

SUB PANEL

QUICKIE BOLT

FLANGE NUT

MOUNTING SCREW

2#BRACKET

MOUNTING SCREW

DASH PANEL

2#BRACKET	2#BRACKET	3#BRACKET
1#BRACKET	2#BRACKET	2#BRACKET
STANDARD MOUNTING CONFIGURATION	"JA" MOUNTING CONFIGURATION	"JZ" MOUNTING CONFIGURATION

WIRING CONNECTION

For 4 x 40W/ 4 x 45W/ 4 x 50W System

ANTENNA SOCKET	**MAIN UNIT**

IGNITION SWITCH (ACC+) — RED — FUSE

MEMORY BACK-UP (B+) — YELLOW

GROUND (B−) — BLACK

POWER ANTENNA — BLUE

FRONT Lch SPEAKER — WHITE / WHITE/BLACK

REAR Lch SPEAKER — GREEN / GREEN/BLACK

AUX IN — (BLACK) — Rch RED / Lch WHITE

RCA CABLE — (GREY) — Rch RED / Lch WHITE

FRONT Rch SPEAKER — GREY / GREY/BLACK

REAR Rch SPEAKER — VIOLET / VIOLET/BLACK
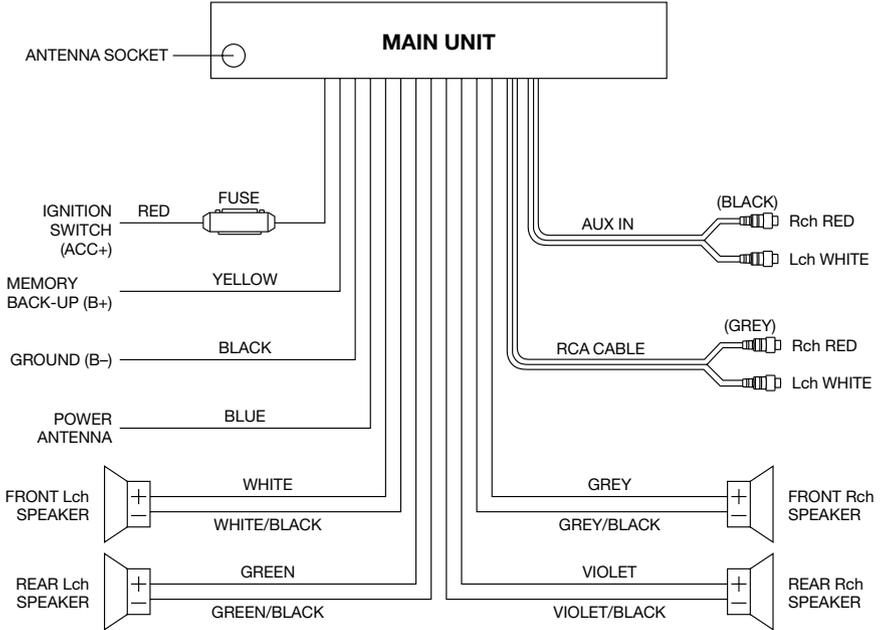
OPERATION

LOCATION OF KEYS
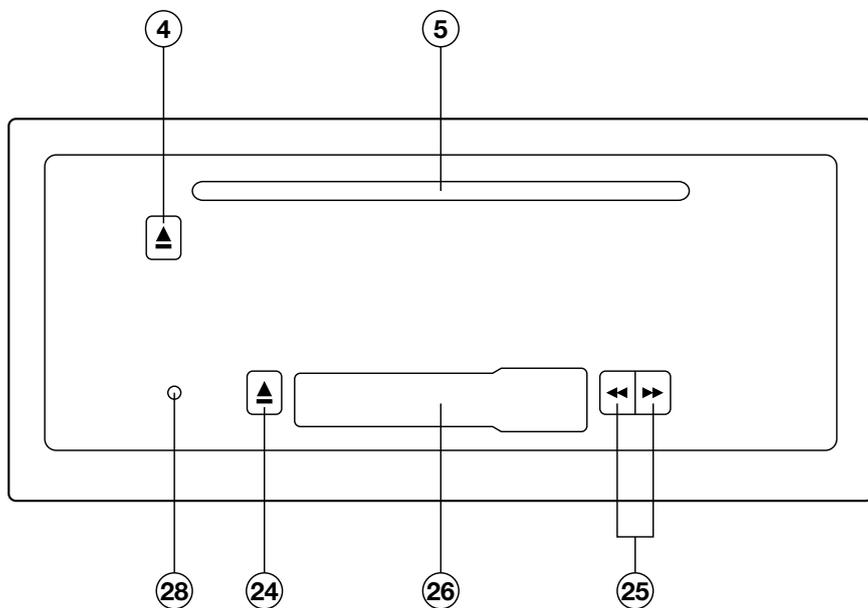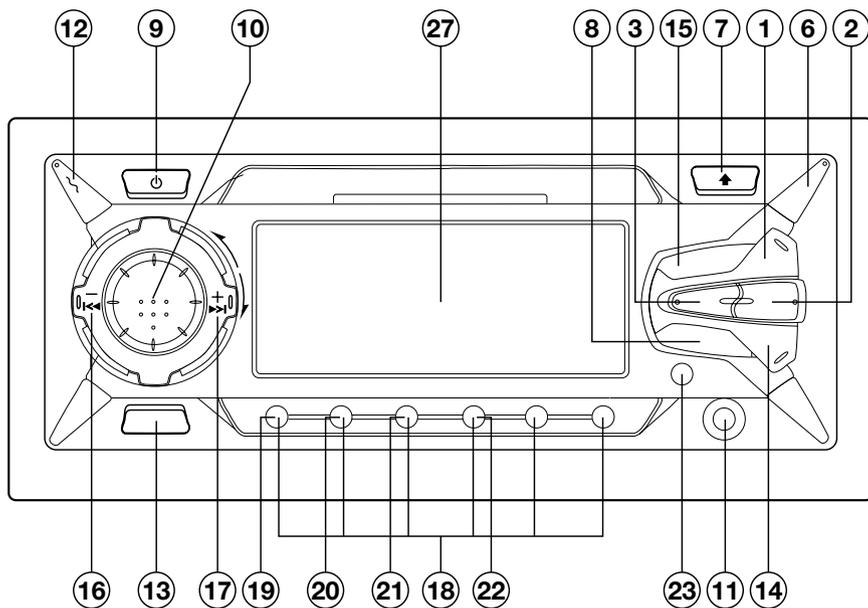
OPERATION

Note: In this product design, there has different sound accompanying with every button pressed and the sound is designed differently according to the customers.

- **SWITCHING ON/OFF THE UNIT**
  Switch on the unit by pressing any button (except **OPEN** button (7)). When system is on, press **POWER** button (9) to turn off the unit.

- **OPEN THE FRONT PANEL**
  Press **OPEN** button (7) to fold down the front panel.

- **SOUND ADJUSTMENT**
  Press **PUSH SELECT** button (10) shortly to select the desired adjustment mode. The adjustment mode will change in the following order:

  VOL → BAS → TRE → BAL → FAD
  (Volume) (Bass) (Treble) (Balance) (Fader)

  By rotating the knob (10) clockwise or counter-clockwise, it is possible to adjust the desired sound quality.

  Press and hold **PUSH SELECT** button (10) for several seconds to enter into the selection for the situation of beep sound, then rotate the knob (10) clockwise or counter-clockwise to select as follows:

  BEEP 2ND → BEEP ALL → BEEP OFF
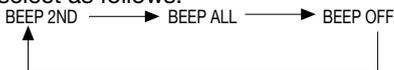
  - BEEP 2'nd mode:
    The beep is only generated when all allowed double function button is pressed long (several seconds).
    e.g.
    When preset button (18) is pressed.
    When **BAND/LOUD (ENTER)** button (13) is pressed.
    When **AMS/D-AUD** button (14) is pressed.
  - BEEP ALL mode:
    The beep is generated when every button is pressed.
  - BEEP OFF mode:
    The beep is disabled.

- **LOUDNESS**
  Press the **BAND/LOUD (ENTER)** button (13) for several seconds to reinforce the bass output. Press it for several seconds again to release this function.

- **SET THE CLOCK**
  Press the **DSP** button (15), the clock is shown on the LCD display. Then hold down the button until the clock flashes. Then press the **TUNE/TRACK/SKIP** ⇥ button (17) to change hours or **TUNE/TRACK/SKIP** ⇤ button (16) to change minutes.

- **MUTE**
  Press **MUTE** button (2) to mute down the sound instantly. If any button is pressed in the mute state, the mute state is released.

- **EQUALIZATION**
  Press **EQ** button (12) to turn on equalization function and to select desired audio mode. There are five kinds of mode as below:

  FLAT → CLASSICS → POP M → ROCK M → DSP OFF
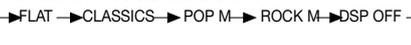
- **LIQUID CRYSTAL DISPLAY**
  Exhibit current frequency and activated functions on the display (27).

- **REMOTE SENSOR**
  Point the remote control handset to the remote sensor **IR** (23). Press the function keys on the handset to control the system.

- **ESP FUNCTION**
  If the unit has the electronic shockproof function, it can be shockproof about several tens of seconds.

- **AUXILIARY INPUT**
  The unit can be connected to a portable audio player through the **AUX IN** jack (11).

- **RESET**
  RESET button (28) must be activated with either a ball point pen or thin metal object. The **RESET** button (28) is to be activated for the following reasons:
  - Initial installation of the unit when all wiring is completed.
  - All the function buttons do not operate.
  - Error symbol on the display.

OPERATION

RADIO OPERATION

- **SWITCHING TO RADIO MODE**
  Press **MODE** button (6) shortly to select radio mode, the radio mode appears in the display together with the memory band and frequency.

- **SELECTING THE FREQUENCY BAND**
  At radio mode, press **BAND/LOUD (ENTER)** button (13) shortly to select the desired band.
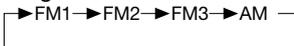 The reception band will change in the following order:

  $$\rightarrow FM1 \rightarrow FM2 \rightarrow FM3 \rightarrow AM$$

- **SELECTING STATION**
  Press **TUNE/TRACK/SKIP** button (17) or **TUNE/TRACK/SKIP** button (16) shortly to activate automatic seek function. Press for several seconds until **"MANUAL"** appears on the display, the manual tuning mode is selected. If both buttons have not been pressed for several seconds, they will return to seek tuning mode and **"AUTO"** appears on the display.

- **LOCAL/DISTANT**
  Press **LOC** button (1) to select between local and distant stations. Local setting for reception of strong station, and a distant setting for reception of weaker stations. This function is effect during AUTO SEEK operation.

- **AUTOMATIC MEMORY STORING & PROGRAM SCANNING**
  - Automatic Memory Storing
    Press **AMS/D-AUD** button (14) for several seconds, the radio searches from the current frequency and checks the signal strength until one cycle search is finished. And then 6 strongest stations are stored into the corresponding preset number button.
  - Program Scanning
    Press **AMS/D-AUD** button (14) shortly to scan preset station. When the field strength level is more than the threshold level of stop level, the radio is holding at that preset number for several seconds with release mute, then searches again.

- **STATION STORING**
  Press any one of the preset buttons (18) (1 to 6) to select a station which had been stored in the memory. Press this button for several seconds (until 2ND beeps come out), current station is stored into the number button.

- **MONO/STEREO**
  Press **MO/ST** button (8) to select mono or stereo mode. You can sometimes improve reception of distant stations by selecting mono operation.

- **SCAN**
  Press **SCAN** button (3) to set the function to scan mode, which scanning to higher frequency station with receivable signal and keep on each station for several seconds.

CASSETTE OPERATION

- **SWITCHING TO TAPE MODE**
  If there is no tape inserted in the cassette compartment:
  Press **OPEN** button (7) to fold down the front panel and show the cassette compartment (26). Then insert the tape into the compartment. The cassette mechanism will load it in play mode.
  If a tape is already inserted in the cassette compartment:
  Keep pressing **MODE** button (6) shortly until the tape mode display appears.

- **PROGRAM BUTTON**
  These two buttons (25) perform the dual functions of changing the direction of tape playback and fast forward/rewind of the tape.
  - Change Tape Playback Direction
    Press both buttons together to play the other side of a tape.
  - Fast Forward/Rewind
    Press the button with the double arrows pointing the same direction as the direction indicator in the LCD to fast forward; press other button in the opposite direction to fast rewind.

- **EJECT**
  When the front panel is folded down, push the eject (⏏) button (24) down to eject the cassette tape.

OPERATION

CD OPERATION

- **SWITCHING TO CD MODE**
  If there is no CD inserted in the driver:
  Gently insert the CD with the printed
  side uppermost into the CD slot (5)
  until you feel some resistance. The CD
  is drawn into the driver automatically.
  CD playback begins.
  If a CD is already inserted in the driver:
  Keep pressing **MODE** button (6) shortly
  until the CD mode display appears.

- **SELECTING TRACKS**
  Press **TUNE/TRACK/SKIP** ⏮ button
  (16) or **TUNE/TRACK/SKIP** ⏭ button
  (17) to move to the previous track or
  the following track. Track number
  shows on display.
  Hold **TUNE/TRACK/SKIP** ⏮ button
  (16) or **TUNE/TRACK/SKIP** ⏭ button
  (17) to fast reverse or fast forward. CD
  play starts from when you release the
  button.

- **PAUSING PLAYING**
  Press **PAU** button (19) to pause CD
  player. Press it again to resume play.

- **PREVIEWING ALL TRACKS**
  Press **SCN** button (20) to play first
  several seconds of each track on the
  current disc. Press again to stop intro
  and listen to track.

- **REPEATING THE SAME TRACK**
  Press **RPT** button (21) to continuously
  repeat the same track. Press it again
  to stop repeat.

- **PLAYING ALL TRACKS IN RANDOM**
  Press **SHF** button (22) to play all tracks
  on CD in random order. Press again
  to cancel the function.

- **EJECTING A DISC**
  When the front panel is folded down,
  press the eject button (4) to eject rhe
  disc from the disc slot (5).

OPERATION

MP3 OPERATION

- **SWITCHING TO CD (MP3) MODE**
  If there is no MP3 disc inserted in the driver:
  Gently insert the MP3 disc with the printed side uppermost into the disc slot (5) until you feel some resistance. The MP3 disc is drawn into the driver automatically. The MP3 playback begins.
  If a MP3 disc is already inserted in the driver:
  Keep pressing **MODE** button (6) shortly until the CD (MP3) mode display appears.

- **EJECTING A DISC**
  When the front panel is folded down, press the eject button (4) to eject the disc from the disc slot (5).

- **SELECTING TRACKS IN SINGLE STEP**
  Press **TUNE/TRACK/SKIP** ⏮ button (16) or **TUNE/TRACK/SKIP** ⏭ button (17) to move to the previous track or the following track. Track number shows on display.

- **PAUSING PLAYING**
  Press **PAU** button (19) to pause MP3 player. Press it again to resume play.

- **PREVIEWING ALL TRACKS**
  Press **SCN** button (20) to play first several seconds of each track on the current disc. Press again to stop intro and listen to track.

- **REPEATING THE SAME TRACK**
  Press **RPT** button (21) to continuously repeat the same track. Press it again to stop repeat.

- **PLAYING ALL TRACKS IN RANDOM**
  Press **SHF** button (22) to play all tracks on MP3 disc in random order. Press again to cancel the function.

- **SELECTING TRACKS BY AMS/D-AUD BUTTON**
  AMS button is assigned as Digital Audio Mode selection button in MP3 operation.

When pressed, it is activated as selecting each mode of Digital Audio. "Searching track directly" => "Searching Directory or File Name"=> "Navigation" from root by **TUNE/TRACK/SKIP UP/DOWN** buttons=> "Navigation" from current directory by **TUNE/TRACK/SKIP UP/DOWN** buttons.

Searching Track Directly
Press **AMS (D-AUD)** button for one time. It enters into "Searching track directly" in Digital Audio CD.
The unit searches the track selected by following direct numeric buttons: **M1-M6, MODE (7), TUNE/TRACK/SKIP DOWN (8), TUNE/TRACK/SKIP UP (9), DSP(0).**
If selected three digits, the unit searches the track at once. If selected one or two digits, the unit wait for **BAND/LOUD (ENTER)** button for seconds. The unit searches the track after few seconds, even if the enter button is not pressed.

Searching Directory or File Name
Press **AMS (D-AUD)** button for two times. It enters into "Searching Directory or File Name" in Digital Audio CD.
The unit searches files and directories that have the same character which is inputted by the user pressing the corresponding buttons listed on the Table 1 below.
Explain as follows:
- Use the corresponding buttons to select the characters A to Z, blank, 0 to 9, _, -, +.
- Press **PUSH SELECT** button to confirm entry of each characters.
- Press **BAND/LOUD (ENTER)** button to start the title search.
In case the selected title is a directory name, display will show (' '), then
- Use the **TUNE/TRACK/SKIP UP/DOWN** buttons to list all songs under this directory and select the title.

- Press **BAND/LOUD (ENTER)** button to confirm and start the play.
- Repeat the above steps if the newly selected title is again a directory.

Searching From Root Directory
Press **AMS (D-AUD)** button for three times. The unit searches file or directory from root by **TUNE/TRACK/SKIP UP/DOWN** buttons. (D-DIR icon turns on if the name is directory). Display will list all available directories and songs. Select the desired directory/songs by using **TUNE/TRACK/SKIP UP/DOWN** buttons and **BAND/LOUD (ENTER)** button to confirm. If the selected title is a song, it starts to play.
If the selected title is a directory name, display will show (' '), then
- Use the **TUNE/TRACK/SKIP UP/DOWN** buttons to list all songs under this directory and select the title.
- Press **BAND/LOUD (ENTER)** button to confirm and start the play.
- Repeat the above steps if the newly selected title is again a directory.

Searching From Current Directory
Press **AMS (D-AUD)** button for four times. The unit searches file or directory from current directory by **TUNE/TRACK/SKIP UP/DOWN** buttons. (D-DIR icon turns on if the name is directory). The current directory name is displayed for a second and the currently playing file name is displayed (selected). The user can select the directory or file in the directory by **TUNE/TRACK/SKIP UP/DOWN** buttons. The selected file can be played by pressing **BAND/LOUD (ENTER)** button.

"MP3" icon turns on when MP3 disc is played and blinks when it is in navigation mode.

• **DISPLAY INFORMATION**
Press **DSP** button (15) to show following information, such as the clock, ID3 TAG (if available: song title, directory name, artist name, other contents…) and other information.

KEY Assigned IN Searching mode (Table 1)

AMS	Mode Select
BAND/LOUD	ENTER
M1	A, B, C, 1
M2	D, E, F, 2
M3	G, H, I, 3
M4	J, K, L, 4
M5	M, N, O, 5/ Directory DOWN
M6	P, Q, R, 6/ Directory UP
MODE	S, T, U, 7
TUNE/TARCK/SKIP DOWN	V, W, X, 8
TUNE/TARCK/SKIP UP	Y, Z, SPACE, 9
PUSH SELECT	CHARACTER SHIFT RIGHT
DSP	_, −, +, 0
AUDIO ADJUST KNOB	CHARACTER SELECT (A, B - 8, 9, 0)

AUDIO ADJUST KNOB (ENCODER) & TUNE/TRACK/SKIP UP/DOWN buttons: Searching file and directory during Navigation.

OPERATION

WMA OPERATION
The unit that can play the WMA disc and the operation is the same with MP3 operation described above.

AUDIO DSP (MP3/WMA DECODER)
The audio DSP converts MP3/WMA stream data from the CD-ROM decoder to PCM data.

The following standards and bit rate are supported.

Standard	Bit Rate (kbps)	Supported Mode
MPEG1 Audio LAYER3 (48kHz/ 44.1kHz/ 32kHz)	320,256,224, 192,160,128, 112,96,80,64, 56,48,40,32	STEREO JOINT STEREO DUAL CHANNEL SINGLE CHANNEL
MPEG2 Audio LSF LAYER3 (24kHz/ 22.05kHz/ 16kHz)	160,144,128, 112,96,80,64, 56,48,40,32, 24,16,8	STEREO JOINT STEREO DUAL CHANNEL SINGLE CHANNEL
Windows Media Audio (32kHz)	48	STEREO
Windows Media Audio (44.1kHz)	48	SINGLE CHANNEL
Windows Media Audio (44.1kHz)	320,256,192, 160,128,96, 80,64,48	STEREO
Windows Media Audio (48kHz)	192,160,128	STEREO

The audio DSP automatically identifies the supported bit rate and mode, and sampling frequency. MP3 and WMA must be identified by the microcontroller.

CAUTION: VBR of WMA can be played back if the bit rate is 48 kbps or higher. If a bit rate of less than 48 kbps exists in a stream, that stream cannot be correctly played back.

You are suggested to play the WMA stream data with the sampling frequency of 44.1kHz and the bit rate over 128kbps, then you can get better effect.

DISC NOTE
A. Notes on discs:
1. Attempting to use non-standard shape discs (e.g. square, start, heart) may damage the unit. Be sure to use round shape CD discs only for this unit.
2. Do not stick paper or tape etc., onto the label side or the recording side of any discs, as it may cause a malfunction.
3. Dirt, dust, scratches and warping discs will cause misoperation.

B. Notes on CD-Rs (recordable CDs)/CD-RWs (rewritable CDs):
1. Be sure to use discs with following marks only for the unit to play:

2. The unit cannot play a CD-R and CD-RW that is not finalized. (Please refer to the manual of your CD-R/CD-RW recorder or CD-R/ CD-RW software for more information on finalization process).
3. Depending on the recording status, conditions of the disc and the equipment used for the recording, some CD-Rs/CD-RWs may not be played on this unit. (See *1)
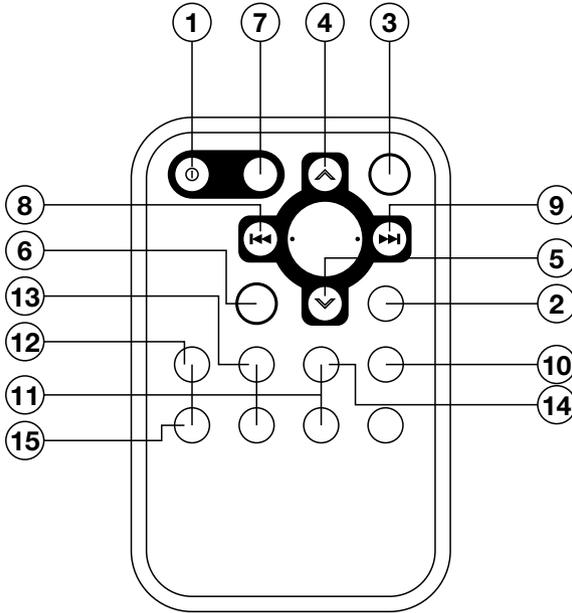*1: To have more reliable play back, please see following recommendations:
   a. Use CD-RWs with speed 1x to 4x and write with speed 1x to 2x.
   b. Use CD-Rs with speed 1x to 8x and write with speed 1x to 2x.
   c. Do not play a CD-RW which has been written for more than 5 times.

C. Notes on MP3 files (MP3 Version Only):
1. The disc must be in the ISO9660 level 1 or level 2 format, or Joliet or Romeo in the expansion format.
2. When naming a MP3 file, be sure the file name extension is ".MP3".
3. For a non-MP3 file, even though the file name extension is ".MP3", the unit cannot recognize it.

REMOTE CONTROL HANDSET

FUNCTION KEYS & CONTROL

1. ⏻ PWR = Power ON/OFF Button
2. DSP (0) = Display Button (_, −, +, 0 For MP3/WMA Operation)
3. SEL = Sound Mode Select Button (Character Shift Right For MP3/WMA Operation)
4. VOL ⋀ = Volume Up Button [Character Select (A, B ~ 8, 9, 0) For MP3/WMA Operation]
5. VOL ⋁ = Volume Down Button [Character Select (A, B ~ 8, 9, 0) For MP3/WMA Operation]
6. BND (LOU/ENT) = Band Select Button (When pressed shortly)
    Loudness Button (When pressed long)
    (Enter Button For MP3/WMA Operation)
7. MOD (7) = Mode Button (S, T, U, 7 For MP3/WMA Operation)
8. TUNE/SEEK ◄◄ (8) = Tune/Skip Down Button; Select Channel Down in XM Mode (V, W, X, 8 For MP3/WMA Operation)
9. TUNE/SEEK ►► (9) = Tune/Skip Up Button; Select Channel Up in XM Mode (Y, Z, SPACE, 9 For MP3/WMA Operation)
10. AS/PS (D-AUD) = Automatic Memory Storing & Program Scanning Button (Mode Select Button For MP3/WMA Operation)
11. M1 - M6 = Preset Buttons (A~R, 1~6 For MP3/WMA Operation)
12. PAU = Pause Button (A, B, C, 1 For MP3/WMA Operation)
13. SCN = Scanning Button (D, E, F, 2 For MP3/WMA Operation)
14. RPT = Repeat Button (G, H, I, 3 For MP3/WMA Operation)
15. SHF = Shuffle Button (J, K, L, 4 For MP3/WMA Operation)

SPECIFICATIONS

GENERAL

Power Supply Voltage   : 12 Volts DC, Negative Ground
Chassis Dimensions   : 200 mm (W) x 138 mm (D) x 100 mm (H)
Loading Impedance   : 4 - 8 Ω per channel
Maximum Output Power   : 4 x 50 Watts
Current Drain
- Version Y/Y1/Y2   : 15 Ampere (max.)

CD PLAYER

Signal to Noise Ratio   : More than 55 dB
Channel Separation   : More than 50 dB
Frequency Response   : 20 Hz - 20 KHz

CASSETTE PLAYER

Tape Speed   : 4.76 cm/sec
Fast Forward Time   : 180 seconds (C-60 type)
Frequency Response   : 50 to 8,000 Hz
Channel Separation   : > 35 dB
Crosstalk   : > 40 dB
Wow and Flutter   : ≤ 0.35% WRMS

RADIO

FM

Frequency Coverage   : 87.5 to 108 MHz
I.F.   : 10.7 MHz
Sensitivity (S/N = 30 dB)   : 3 μV
Image Rejection   : > 45 dB
Stereo Separation   : > 30 dB

AM

Frequency Coverage   : 530 to 1710 KHz
I.F.   : 10.71 MHz
Sensitivity (S/N = 20 dB)   : 32 dBu

TROUBLE SHOOTING

Before going through the check list, check wiring connection. If any of the problems persist after check list has been made, consult your nearest service dealer.

Symptom	Cause	Solution
No power.	The car ignition switch is not on.	If the power supply is connected to the car accessory circuits, but the engine is not moving, switch the ignition key to "ACC".
	The fuse is blown.	Replace the fuse.
Disc cannot be loaded or ejected.	Presence of CD disc inside the player.	Remove the disc in the player, then put a new one.
	Inserting the disc in reverse direction.	Insert the compact disc with the label facing upward.
	Compact disc is extremely dirty or defective disc.	Clean the disc or try to play a new one.
	Temperature inside the car is too high.	Cool off or until the ambient temperature return to normal.
	Condensation.	Leave the player off for an hour or so, then try again.
Cassette tape cannot be loaded or ejected.	Presence of a cassette tape in the player.	Remove the cassette tape in the player, then put in the new one.
	The temperature in the car is too high.	Cool off the inside of the car, then try again.
	Condensation.	Leave the cassette player off for an hour or so, then try again.
No sound.	Volume is in minimum.	Adjust volume to a desired level.
	Wiring is not properly connected.	Check wiring connection.
Sound skips or sound quality is poor.	The installation angle is more than 30 degrees.	Adjust the installation angle to less than 30 degrees.
	The disc is extremely dirty or defective disc.	Clean the compact disc, then try to play a new one.
	The cassette is defective.	Try another cassette.
The operation keys do not work.	The built-in microcomputer is not operating properly due to noise.	Press the RESET button. Front panel is not properly fixed into its place.
The radio does not work. The radio station automatic selection does not work.	The antenna cable is not connected.	Insert the antenna cable firmly.
	The signals are too weak.	Select a station manually.

MAINTENANCE
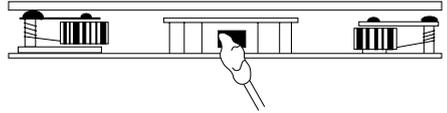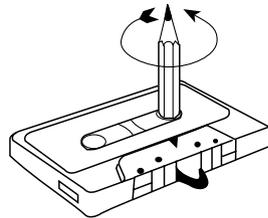
For System

The following suggestions help you care for the product so that you can enjoy it for years.

1. Keep the product dry. If it does get wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.

2. Keep the product away from dust and dirt, which can cause premature wear of parts.

3. Handle the product gently and carefully. Dropping it can damage circuit boards and cases, and can cause the product to work improperly.

4. Wipe the product with a dampened cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the product.

5. Use and store the product only in normal temperature environments. High temperature can shorten the life of electronic devices, damage batteries, and distort or melt plastic parts.

For Tape Player

Periodic cleaning of the tape head and capstan shaft will ensure good reproduction of music and trouble-free operation. Cleaning of the tape head should be done every 20 to 30 hours of operation or when the high tones have become less clear.

1. Use a cassette cleaning cartridge if available. If one is not available, use a cotton swab soaked in isopropyl (rubbing) alcohol.

2. While holding the tape door open, locate tape head to the right of the opening and in the centre of the unit.

3. Clean the tape head with the cotton swab.

4. Clean the capstans and the pinch rollers with the cotton swab.

5. Allow the tape head, capstans and pinch rollers to dry before operating.

6. Do not touch the tape with your fingers; if it becomes lose, wind it back by twisting a six-sided pencil in the cassette reel.

IGNITION AND INTERFERENCE NOISE

IGNITION

The most common source of noise in reception is the ignition system. This is normally due to the fact that radio is placed relatively close to the ignition system (engine). This type of noise can be easily detected because it will vary in intensity of pitch with the speed of the engine.

Usually, the ignition noise can be suppressed considerably by using a radio suppression type high voltage ignition wire and suppressor resistor in the ignition system. (Most vehicles employ this wire and resistor but it may be necessary to check them for correct operation.) Another method of suppression is the use of additional noise suppressors. These can be obtained from most CB/Amateur radio or electronic supply shops.

INTERFERENCE

Radio reception in a moving environment (automobile) is very different from reception in a stationary (home). It is very important to understand the difference.

AM reception will deteriorate when passing through a tunnel or when passing under high voltage lines. Also, noise can be picked up from passing automobiles. Although AM is subject to environmental noise, it has the ability to be received at great distance.
This is due to the fact that broadcasting signals follow the curvature of the earth and are reflected back by the upper atmosphere.

FM reception is just the opposite of AM. It is not subject to environmental noise and it does not have the ability to be received at great distances (usually 30 miles). Also, the FM signal can be blocked by tall buildings, mountains, or hills.

To reduce the possibility of these problems, ALWAYS FINE TUNE a station, and if possible, set the antenna height to 30 inches.